

REMARKS

Claims 1-40 are currently pending in the subject application and are presently under consideration. Claims 1, 4, 7, 18, 29, 33, 35, and 37-40 have been amended as shown at pp. 2-9 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection to Claims 1 and 7

Claims 1 and 7 stand objected to because of minor informalities. The amendment to claim 1 is believed to cure any informalities associated with these claims - withdrawal of this objection is respectfully requested.

II. Rejection of Claims 1, 3-6, 8-19, 21-23, 29-32 and 37-40 Under 35 U.S.C. §101

Claims 1, 3-6, 8-19, 21-23, 29-32 and 37-40 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Withdrawal of this rejection is requested for at least the following reasons. These claims produce a useful, concrete and tangible result, and therefore recite statutory subject matter.

Because the claimed process applies the Boolean principle [abstract idea] ***to produce a useful, concrete, tangible result*** ... on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed. Cir. 1999) (Emphasis added); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability requires an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been ***reduced to some practical application rendering it "useful."*** *AT&T* at 1357 citing *In re Alappat*, 33 F.3d 1526, 31 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (emphasis added).

The Examiner contends that the system of claims 1 and 18 is a computer program with no structural and functional interrelationship between the computer program and

other claimed elements of the computer, and thus non-statutory subject matter. The Examiner further contends that claims 29-32 are drawn to an abstract idea of manipulating data, having no practical application or tangible result. Applicants' representative disagrees and submits that the Examiner is misconstruing the requirements necessary to fulfill the conditions for patentability under 35 U.S.C. §101. According to *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999), the standard set forth by the Federal Circuit for determining whether claims are directed towards statutory subject matter is whether the claims as a whole can be applied in a practical application to produce a useful, concrete and tangible result. It is the result of the claims as applied in a practical application that is germane to the determination of whether the claims are directed towards statutory subject matter, not whether the underlying means by which the result is effectuated that should be tangible, as the Examiner intimates. It is believed therefore that the subject claims clearly satisfy this legal standard. In particular, amended claim 1 recites: *a system that renders data in an industrial automation environment, comprising: an HMI that presents the data in a plurality of device platforms; a device analyzer that determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data; and an HMI generator that generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms*. Amended claim 29 additionally recites *an HMI that controls the physical device utilizing the software object representing the device*. Thus, claim 1 (and similarly independent claims 18 and 29) elicits a series of independent acts that culminates in a useful, concrete and tangible result – delivering code for an HMI to a plurality of devices having properties based on attributes of the respective device platform, and providing control of a physical device. Therefore, claims 1, 18 and 29 (and claims that depend there from) do in fact produce a useful, concrete and tangible result, and therefore relate to statutory subject matter. It is also noted that the amendments to claims 37-40 overcome the stated grounds of rejection.

Furthermore, the independent claims have been amended herein to recite that the systems or methods are computer implemented. Accordingly, this rejection should be withdrawn.

III. Rejection of Claims 37-40 Under 35 U.S.C. §112

Claims 37-40 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Withdrawal of this rejection is requested in view of the herein amendments.

IV. Rejection of Claims 1-28, 33-35, 37-38 and 40 Under 35 U.S.C. §102(e)

Claims 1-28, 33-35, 37-38 and 40 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wolff *et al.* (US App. No. 2003/0120714). Withdrawal of this rejection is requested for at least the following reasons. Wolff *et al.* does not disclose each and every limitation set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim*. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The *identical invention must be shown in as complete detail as is contained in the ... claim*. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Applicant's claimed subject matter as recited in amended claim 1 (and similarly independent claims 33 and 37) relates to a system *that renders data in an industrial automation environment*. *An HMI presents the data in a plurality of device platforms*. *A device analyzer determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data*. *An HMI generator generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms*. Wolff *et al.* does not disclose or suggest these novel features.

Wolff *et al.* relates to an HMI for use with a machine vision system (MVS) in which a communication interface exchanges information with a portable device that can be removed from the MVS during runtime, where the portable device can be a web-

browser equipped computer or a PDA. In connection with claim 1, the Examiner cites paragraphs [0017], [0050] and [0047] against the subject *device analyzer*, and paragraphs [0044] and [0050] against the subject *HMI generator*. However, the paragraph [0017] simply discloses configuring the aforementioned computer or PDA to include “a generic web browser application or another specialized interface application.” Paragraph [0050] discloses “returning certain MVS data – particularly image data – at a data rate and reduced format that conform with the reduced capabilities of the PDA and communication link.” Paragraph [0047] simply discloses “a handshaking process for avoiding reloading of a specialized application where it already exists.” There is nothing in these paragraphs or elsewhere in the cited document to disclose or suggest a *device analyzer that determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data*. Paragraph [0044] only discloses a machine vision application for the PDA that “allows creation of a specific set of GUI display screens and buttons.” There is nothing in paragraphs [0044] or [0050] or elsewhere in this cited document to disclose or suggest an *HMI generator that generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms*, as recited in claim 1 (and similarly independent claims 33 and 37.)

Amended claim 18 (and similarly independent claims 35 and 38) relates to a system that renders data in an industrial automation environment including, *inter alia*, a component that determines if the format and/or sub-format of the data is known to the system, and an artificial intelligence component that determines the format of unknown data received by the HMI. The Examiner cites [0052] of Wolff *et al.* against these claimed aspects. However, this paragraph discloses application software that includes “any of a number of commercially available image compression routines” so as to reduce the MVS data stream to enable display on the PDA. The Office Action then states that “this implies that the software determines if the format and/or sub-format of the data is known to the PDA.” The Office Action cites this explanation with no further elaboration against the claimed *artificial intelligence component*. Wolff *et al.* is simply concerned with compressing image data, and there is nothing in this passage that discloses or suggests a component that determines if the format and/or sub-format of the data is

known to the system. Further, it is respectfully submitted that an assertion that a reference “implies” a claimed feature is not sufficient to meet the requirement that a reference *expressly or inherently describes each and every limitation set forth in the patent claim* in order to show anticipation in accordance with 35 U.S.C. §102(e). Additionally, there is no disclosure or suggestion within the four corners of Wolff *et al.* of *an artificial intelligence component that determines the format of unknown data received by the HMI*, as recited in amended claim 18 (and similarly independent claims 35 and 38).

Amended claim 24 (and similarly independent claim 40) relates to *a method to display data based at least in part on a zoom level selected by a user including displaying data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views, and displaying respective views associated with a corresponding zoom level.* The Office Action cites paragraphs [0054] and [0079] against these claimed aspects. However, these paragraphs only disclose details in connection with a zoom function. There is nothing in these paragraphs nor the remainder of this cited document that discloses or suggests *displaying data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views*, as recited in amended claim 24 (and similarly independent claim 40).

In view of at least the foregoing arguments, it is readily apparent that the cited document does not disclose or suggest every aspect of the claimed subject matter. Accordingly, the rejection of independent claims 1, 18, 24, 33, 35, 37, 38 and 40 (and claims that depend there from) should be withdrawn.

V. Rejection of Claims 29-32, 36 and 39 Under 35 U.S.C. §102(b)

Claims 29-32, 36 and 39 stand rejected under 35 U.S.C. §102(b) as being anticipated by Shteyn (US 6,199,136). Withdrawal of this rejection is requested for at least the following reasons. Shteyn does not disclose each and every limitation set forth in the subject claims.

Applicant’s claimed subject matter as recited in amended claim 29 (and similarly independent claims 36 and 39) relates to *a system that facilitates recognizing and/or creating a software object representing a physical device. A software object generator is*

included that *determines properties associated with a plurality of devices intended for creation of the software object. An HMI generator formats data respectively in accordance with the determined properties of the devices. An HMI controls the physical device utilizing the software object representing the device.* Shteyn does not disclose or suggest these novel features.

Shteyn relates to a home automation system, *e.g.* for controlling audio/video equipment in a home entertainment system. The Office Action cites several passages against the claimed aspects, including: col. 1, lines 57-58; col. 4, lines 5-25; col. 6, lines 14-17; and col. 3, lines 32-36. These passages include various disclosures such as controlling devices through “abstract representations,” having message sets for each class of device, *e.g.* TV receivers, VCRs, *etc.*, modeling home devices as OLE Automation objects, and a data-driven interaction controller that renders a GUI interface on an appliances display, where the displays can vary from graphical to text-only. There is nothing in these passages or elsewhere in this cited document that would disclose or suggest a *software object generator that determines properties associated with a plurality of devices intended for creation of the software object.* Neither is there any disclosure or suggestion of an *HMI generator formats data respectively in accordance with the determined properties of the devices.* And clearly, nothing in this cited document discloses or suggests an *HMI that controls the physical device utilizing the software object representing the device.*

In view of at least the foregoing arguments, it is readily apparent that the cited document does not disclose or suggest every aspect of the claimed subject matter. Accordingly, the rejection of independent claims 29, 36 and 39 (and claims that depend there from) should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP314US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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